

REMARKS

Claims 1, 3, 4 and 6-45 are pending in the subject application. After entry of the above claims, claims 4, 6, 7, and 13 have been amended. The Examiner is respectfully requested to reconsider the rejection of the claims in view of the above amendments and remarks as set forth herein below.

1. Claims 4, 6, 7, and 13 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

The claims have been amended above in response thereto.

2. Claims 1, 3, 4, 6-20, and 27-41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki (US 6,235,376). This rejection is respectfully traversed.

Miyazaki discloses a display label and method for forming a display label for use on a tire. Specifically, under the Field of the Invention it states that the “present invention relates to a display label and a method of forming a display label. Further, the claims are all directed to a label not a tire. Importantly, all of the examples shown in Figures 1, 5 and 8 show a relatively small-sized label for being applied to or for use on a tire. According to the American Heritage Dictionary of the English Language, New College Edition, Houghton Mifflin, 1980, the definition of the word “label” is “anything functioning as a means of identification; especially a

small piece of paper or cloth attached to an article to designate its origin, owner, contents, use or designation.” Thus, a label is made to be attached or connected to an article for identification purposes.

The Examiner states that “one of ordinary skill in the art at the time of the invention would have found it obvious to cover at least fifty percent (50%) of the sidewall depending on the desired aesthetic effect.” Again, Miyazaki discloses a label to be applied to a tire, and all example labels disclosed and shown in Miyazaki are relatively small in size (i.e. a small percentage of the sidewall area). Miyazaki does not disclose or suggest increasing the size of these labels beyond those shown in the examples, but in fact specifically teaches away from making and using larger labels. Specifically, the whole basis of the invention in Miyazaki is to provide a label that will not separate from the tire surface after application thereof by making the label with materials having elasticity or expandability/contractability the same or greater than the material making up the tire. (See discussion beginning column 3, line 5 through column 4, line 56). Attempting to increase the size of the label from those shown in the example will significantly increase the risk of separation of at least a portion of the label due to the increased amount of surface area requiring adequate or good adhesion. Further, increasing the size of the label will make application of the label onto the tire significantly more difficult due to the three-dimensional curvature of the outer surface of the tire. (i.e. See discussion beginning at column 6, line 64 through column 7, line 15 discussing the difficulties of dealing with a three-dimensional curved surface for even the relatively small sized example labels and see discussion at column 12, lines 28-34 disclosing a problem of wrinkling during vulcanization of the tire, again with even the relatively small-sized example labels).

Applicant acknowledges that the size and shape of the example labels shown in the drawings of Miyazaki can be varied to some extent in size and shape, however, surely Miyazaki did not contemplate increasing the size of the labels to five percent (5%) or even ten percent (10%) of the outer surface area of the tire due to the difficulties of applying and maintaining good adhesion of the labels during the life of the tires, let alone increasing the size of the labels to the claimed at least fifty percent (50%) of the sidewall surface according to the present invention. Miyazaki is not directed to a coating or layering process for providing a colored digital image on a substantial portion of the sidewall surface. Clearly, it is not obvious to significantly expand the size of the display label of Miyazaki to cover at least fifty percent (50%) of the sidewall area according to the claimed invention.

The Examiner argues, “that the degree to which the colored picture or photograph covers the tire outer surface represents an aesthetic characteristic, it does not contribute to the mechanical function of the tire.” Applicant disagrees with this statement in that increasing the degree to which the colored digital image covers the outer surface increases the degree to which the digital image covers the outer sidewall surface of the tire. For example, increasing the amount of surface area covered with a bright or eye catching colored digital image according to the claimed combination can greatly enhance the visibility of the tire and/or vehicle during the day (e.g. using red color) or during the night (e.g. using a phosphorescent color). Applicant admits that the colored digital image according to the claimed combination may increase the aesthetic characteristic or effect, however, it also increases physical or mechanical functions of the tire (e.g. visual awareness, tire temperature, tire wear, age, useful life, damage, strain,

identification, markings, information content displayed or other useful functional aspects of a tire).

The Examiner argues that “absent any conclusive showing of unexpected results, one of ordinary skill in the art at the time of the invention would have found it obvious to form the color picture of Miyazaki over at least fifty percent of the outer sidewall surface.” The Examiner has not provided a *prima facie* case of obviousness based on Miyazaki, since Miyazaki does not teach or suggest increasing, let alone significantly increasing the size of the example labels shown and disclosed in Miyazaki. Further, Miyazaki thoroughly discloses the problems with even relatively small prior art labels applied in the past, and the difficulties of applying and retaining even the relatively small labels on a tire. The technical difficulties with expanding the size of the example labels to double their size (i.e. still a small percentage of the sidewall surface of the tire) let alone to fifty percent (50%) of the sidewall surface area would preclude one skilled in the art attempting to substantially color a tire with the type of label disclosed by Miyazaki. Only through improper hindsight, once knowing Applicant’s invention, would it possibly be considered obvious to increase the size of the Miyazaki label from a couple percent to at least fifty percent of the sidewall surface area.

Very importantly, Miyazaki does not disclose applying a digital image or a process of applying a digital image to a tire, let alone the claimed combination.

Regarding claims 4 and 6, Applicant disagrees with the Examiner’s argument that “the degree to which the colored picture is arranged over the sidewall does not contribute to the

mechanical function of the tire – it represents an aesthetic design choice that would have been well within the prevue of ordinary skill in the art at the time of the invention depending on the desire aesthetic effect.” Again, as an example, increasing the percentage of the sidewall surface area with a bright color (red, irredescent) would significantly increase the visibility or visual awareness of the vehicle tire and/or vehicle on which such a tire was mounted. As a further example, increasing the amount of surface area increases the amount of information that can be carried and displayed from the sidewall surface of the tire. There exists numerous other examples such as discussed above of significantly increasing the percentage of surface of colored digital image on the sidewall of a tire to substantially increas the tire’s functionality.

Regarding claims 7, 10-12, 14-17, and 19, the display label of Miyazaki has a substantial uniform thickness and does not have raised elements (e.g. patterns). It is further noted that the label is most likely completely embedded into the surface of the tire due to the label being applied to a green tire prior to being molded and vulcanized. Thus, the label of Miyazaki has little or any three-dimensional characteristics or features.

Regarding claims 8 and 9, Miyazaki does not disclose the label or the tire to which the label is applied as being textured/sculptured according to the claimed combination. Specifically, the labels of Miyazaki are substantially uniformed in thickness and have a substantially smooth outer surface, and Miyazaki does not disclose any information regarding the surface properties of the tire to which the label is being applied.

Regarding claims 13 and 18, the label of Miyazaki is not disclosed as having a camouflaged design (claim 13) or providing pin stripping (claim 18). Camouflaging itself is a functionality of the tire. Specifically, camouflaging of any article provides the function of making the article more difficult to observe by viewers. Applicant requests the Examiner to provide a reference disclosing a relevant camouflaged tire.

Regarding claims 20 and 27-29, Miyazaki does not disclose the stability of the coloring of the labels, nor the combination of claims 27-29. Again, coloring can contribute to the mechanical function of the tire (e.g. visibility, information content, wear indication, damage indication), and Miyazaki does not disclose any information concerning the combinations of claims 20 and 27-29.

Regarding claims 31-34, the Examiner argues that “the claims fail to further define the structure of the claimed tire article or wheel assembly – the claims are directed to the method or selecting and matching the color of the tire rubber to an additional tire component. It is additionally noted that such a selection is dependent on the desire aesthetic effect.” The combinations of claims 31-34 further limit the configuration and/or arrangement of the tires, and also in a functional manner. For example, color coordinating the tire with the wheel can greatly increase the visibility of the tire mounted on the wheel on the vehicle. As another example, the information content displayed on the tire can coordinate or have a nexus with the information content displayed on the wheel or vehicle. There are numerous other examples relating the substantial application of a colored digital image to the sidewall surface of the tire coordinating with the color, texture, style, design or other features or arrangements of the wheel or vehicle.

The same applies with regard to color coordination of the tire and at least one portion of the vehicle (claim 32).

Regarding claims 35, 36, and 39-41, Miyazaki does not disclose the color or details of the coloring of the tire to which the Miyazaki label is to be applied. Further, Miyazaki clearly does not teach or suggest the claimed combination of both uniformly coloring the tire and applying a colored digital image to the outer sidewall surface of the tire (claim 35), nor coloring throughout the depth of tire (claim 36) or the combination recited in claims 39-41. Miyazaki is completely silent on these features.

Regarding claims 37 and 38, Miyazaki does not disclose the claimed combination including a chemical composition used to make a tire a non-uniform colored surface when formed. Miyazaki is completely silent on this feature.

In conclusion, Miyazaki only discloses a label covering a small percentage of the outer surface area of a tire to which the label is applied. The invention of Miyazaki is directed to a label for a tire, and not the tire itself. There exists no suggestion to expand the size of the example labels disclosed and shown in Miyazaki, and Miyazaki teaches away from increasing this size of the label by providing significant details as to the difficulties of applying even the relatively small sized example labels shown and disclosed in Miyazaki to tires. Clearly, Miyazaki does not teach or suggest the claimed invention.

3. *Claims 21, 23, 24, 26, and 42-45 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki as applied in claim 1 above and further in view of Ono (JP 08156501) and Rogal (DE 19613801). This rejection is respectfully traversed.*

Miyazaki is discussed in detail in the above response to the rejection of claims 1, 3, 4, 6-20, and 27-41 under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki.

Ono discloses a label or sheet 9 applied to the surface of a tire 3 with a temperature indicating coating material applied to the sheet or a fluorescent coating material applied to the label or sheet. The label or sheet 9 shown in the figure covers only a small percentage of the outer sidewall surface of the tire.

Rogal discloses a tire for a motor vehicle having the side surfaces and/or tread surfaces colored with at least one pigment and/or a colored layer containing at least one pigment applied to the outside of the side surfaces. A pattern can be created which only becomes visible when a certain vehicle speed is reached, enabling the speed to be monitored visually by someone outside the vehicle.

The Examiner argues that “Miyazaki fails to expressly describe a tire construction on which the outer surface changes color with time it is extremely well know in the tire industry to include such arrangements, primarily to indicate a tire characteristic (e.g. temperature, pressure) or to provide a safety mechanism (e.g. improve visibility of tire), as shown for example by Ono and Rogal.”

Regarding claim 21, neither Ono nor Rogal disclose an outer surface of the tire being configured to change color with time. This feature is not limited to only an aesthetic feature, but for example, can be utilized to indicate the age of the tire (e.g. changes from highly colored to pale color with time).

Regarding claim 24, neither Miyazaki, Ono nor Rogal disclose the claimed feature wherein the change of color is reversible.

Regarding claim 26, Miyazaki, Ono or Rogal do not disclose a device for lighting a tire.

Regarding claim 42, only the label of Ono, not the tire on which the label is applied indicates temperature.

Regarding claim 43, Miyazaki, Ono and Rogal do not disclose a tire configured to change color when the tire changes pressure according to the claimed combination.

Regarding claim 45, Miyazaki, Ono and Rogal do not disclose a tire configured so that the tire changes color when the vehicle changes speed according to the claimed combination. Instead, Rogal discloses a “pattern” which only becomes visible when a certain vehicle speed is reached, enabling the speed to be monitored visually by someone outside the vehicle. This is not the same as a change in color with vehicle speed according to the claimed combination.

4. *Claims 22 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki as applied in claim 1 above and further in view of Porto et al. (US SIR No. H1283). This rejection is respectfully traversed.*

Miyazaki is discussed in detail above in response to the rejection of claims 1, 3, 4, 6-20, and 27-41 under 35 U.S.C. § 103(a) as being unpatentable over Miyazaki.

Porto *et al.* discloses a wear-indicating tire including a tread section that is formed of a plurality of visually different plies that present a visually different effect as the tire tread wears down. The sidewall section of the tire also includes a pattern or that cooperates with the visual signal from the tire tread section to provide an overall aesthetic appearance that is pleasing. (Abstract) Porto *et al.* further discloses a tire 10² having a sidewall section 32 that is patterned as shown in Figure 3 and discloses a tire 10³ having a checkered pattern, as shown in Figure 4. Porto *et al.* does not disclose any further details regarding the sidewall pattern shown in Figure 3 or the checkered pattern shown in Figure 4.

Miyazaki and Porto *et al.* do not disclose a motorized vehicle tire having an outer sidewall surface provided with a colored digital image developed on at least fifty percent (50%) of the outer sidewall surface of the tire to visually enhance the tire, let alone the combination wherein the outer surfaces are configured to change color with wear (claim 22), or wherein the change of color is irreversible (claim 25).

Very importantly, neither Miyazaki or Porto *et al.* disclose developing a digital image on the sidewall surface of a tire, let alone the claimed combination.

The Examiner argues that “one of ordinary skill in the art at the time of the invention would have found it obvious to form the tire of Miyazaki with a well known and conventional wear indicating means as such assemblies provide improved safety.” Again, Miyazaki discloses a label to be applied to a tire, which label is only a small percentage of the sidewall surface of the tire. Even if the wear-indicating tread of Porto *et al.* is applied to the tire of Miyazaki, this proposed arrangement does not meet the limitations of the claimed combination including a digital image developed on at least fifty percent (50%) of the outer sidewall surface of the tire to visually enhance the tire. It is important to note that the sidewall pattern shown in Figures 3 and 4 of Porto *et al.* are not disclosed in detail, and Porto *et al.* is silent as to the manner or method of applying patterns to the tire in Porto *et al.* Further, both Miyazaki and Porto *et al.* do not disclose providing an image on a tire by developing a digital image on the surface thereof. In conclusion, Miyazaki and Porto *et al.* alone or in combination do not teach or suggest the claimed invention.

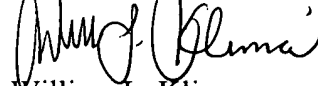
In view of the above amendments and remarks, it is believed that the claims are in condition for allowance, and allowance is respectfully requested.

It is not believed that extensions of time are required beyond those that my otherwise be provided for in accompanying documents. However, in the event that additional extensions of

time are necessary to prevent abandonment of this application, then such extensions of time are necessary and hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefore are hereby authorized to be charged to our Deposit Account No. 11-1243.

Respectfully submitted,

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